PATENT

Attorney Docket No.: AURO1160-7

In re Application of Shumate et al.

U.S. Serial No.: 10/082,974 Filed: February 25, 2002

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IN THE CLAIMS

Upon entry of the present amendment, the claims will stand as follows. The following listing of claims will replace all prior versions and listings of the claims in the present application:

Please cancel claims 1-30 without prejudice.

Please amend claim 31.

Please add new claims 32-36.

Claims 1-30 (Canceled)

- 31. (Currently amended) A chemical solution distribution system for distributing chemical solutions into multiwell plates having at least 384 wells, the system comprising:
- a) <u>a plurality of at least one</u> liquid handlers, each liquid handler comprising <u>96</u> 48-or more, but not less than 384, tips, said tips having a dynamic range of liquid dispensation of 100 to 2000 nanoliters, and
- b) an orthogonal positioner, said liquid handler comprising a tip dispensing matrix with about 96 or more tips, being capable of moving said at least one multiwell plate with an X-Y location accuracy of at least +/- 0.09 mm in X and Y.
- 32. (New) The chemical solution distribution system of claim 31, further comprising: a Z-positioner; and

each of said plurality of liquid handlers further includes a wash station below said tips, wherein said Z-positioner is capable of moving said tips into contact with solution in said wash station.

33. (New) The chemical solution distribution system of claim 31, further including a computational unit to reformat from a first density to a second high density multiwell plate.

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- 34. (New) The chemical solution distribution system of claim 31, further comprising at least one stacker, said stacker capable of storing said multiwell plates.
- 35. (New) The chemical solution distribution system of claim 34, further comprising a conveyer belt, said conveyor belt being capable of moving at least one multiwell plate between said plurality of liquid handlers and at least one stacker.
- 36. (New) The chemical solution distribution system of claim 35, wherein: each of said multiwell plates has a lid;

said chemical solution distribution system further comprising a delidder, said delidder capable of removing and replacing a lid on each of said multiwell plates; and

said conveyor belt further capable of moving said multiwell plates between said plurality of said liquid handlers, said at least one stacker, and said delidder.